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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/606,360	06/26/2003	Yukio Tokunaga	46287	4538
20736	7590	02/06/2006		
MANELLI DENISON & SELTER 2000 M STREET NW SUITE 700 WASHINGTON, DC 20036-3307			EXAMINER JOLLEY, KIRSTEN	
			ART UNIT 1762	PAPER NUMBER

DATE MAILED: 02/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/606,360	<b>Applicant(s)</b> TOKUNAGA ET AL.	
	<b>Examiner</b> Kirsten C. Jolley	<b>Art Unit</b> 1762	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 and 3-20 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 10/230,995.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>6/26/03</u> . | 6) <input type="checkbox"/> Other: ____.  |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 5 and 19-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 5 is vague and indefinite because it is not known whether the 6% water content is by weight or by volume, and therefore the scope of the claim is unknown.

Claims 19-20 are vague and indefinite because it is not clear what is meant by the phrase "length to a longitudinal direction". For the purpose of examination this phrase has been interpreted as --length in a longitudinal direction--.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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4. Claims 1 and 10-11, 13, 16-17, and 19-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Ohya et al. (US 2003/0008113).

Ohya et al. discloses a process for preparing an ink-jet recording material having a water-resistant support and at least one ink-receptive layer provided on the support by cutting to a sheet-state, which comprises cutting the ink-jet recording material such that a longitudinal direction of the ink-jet recording material is at a right angle to a flowing direction of the recording material at a time of coating the ink-receptive layer, wherein the water-resistant support is a polyethylene-coated paper support (paragraph 0067) and at least one of the ink-receptive layers contains inorganic fine particles having an average primary particle size of 4-20 nm (paragraph 0096) and a hydrophilic binder (paragraph 0087). It is noted that Ohya et al. teaches that the recording material has a width of 12.7 cm, and is cut every 8.9 cm, therefore the longitudinal direction of the material is at a right angle to the flowing direction of the material at a time of coating (see Figure 1 and paragraph 0316).

As to claims 10-11, Ohya et al. teaches that the ink-receptive layer contains the inorganic fine particles in an amount of 10-25 g/m<sup>2</sup> (paragraph 0107).

As to claim 13, Ohya et al. teaches that the inorganic fine particles may be silica or alumina hydrate (paragraph 0093).

As to claims 16-17, Ohya et al. teaches use of boric acid and borate hardeners (paragraph 0180).

As to claims 19-20, Ohya et al. teaches a length of the longitudinal direction of 127 mm (paragraph 0316).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 3-9, 12, 14-15, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohya et al. (US 2003/0008113).

As to claim 5, Ohya et al. teaches that the water content of the polyethylene-coated paper support is in the range of 2-100%. Overlapping ranges are *prima facie* evidence of obviousness. It would have been obvious to one having ordinary skill in the art to have selected the portion of Ohya et al.'s water content range that corresponds to the claimed range. *In re Malagari*, 184 USPQ 549 (CCPA 1974).

As to claims 6-7, Ohya et al. teaches that the polyethylene used to form the base paper may be low density and/or high density polyethylene resin (paragraph 0071). While Ohya et al. lacks a teaching of the density and amount of resin on each side, it would have been obvious for one having ordinary skill in the art to have determined these variables depending upon the desired finish, strength, thickness, quality, etc. of the finished product.

As to claims 8-9, Ohya et al. teaches that the amount of inorganic particles depends upon an ink absorption volume required, a void rate of a void layer, kinds of inorganic pigment or kinds of resin (paragraph 0107). It would have been obvious for one having ordinary skill in the art to have determined the optimum amount of inorganic particles through routine experimentation depending upon the above-discussed factors.

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As to claims 3-4 and 12, Ohya et al. is silent with respect to the solid content of the subbing layer (paragraph 0086) and average secondary particle size of the inorganic fine particles. It would have been obvious for one having ordinary skill in the art to have determined the optimum value of these variables through routine experimentation in the absence of a showing of criticality since Ohya et al. does not set forth limits.

As to claims 14-15, the weight ratios of Ohya et al. overlap the claimed ranges (paragraph 0108). Overlapping ranges are *prima facie* evidence of obviousness. It would have been obvious to one having ordinary skill in the art to have selected the portion of Ohya et al.'s weight ratio range that corresponds to the claimed range. *In re Malagari*, 184 USPQ 549 (CCPA 1974).

As to claim 18, Ohya et al. teaches a polymerization degree of polyvinyl alcohol of 1500-5000 (paragraph 0101). It would have been obvious to one having ordinary skill in the art to have selected the portion of Ohya et al.'s range that corresponds to the claimed range.

### ***Conclusion***


7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Ohya et al. (US 2003/0194539) is cited for its teachings similar to Ohya et al. '113 as discussed above. Moriya et al. (US 6,716,492) is cited for its teachings of cutting an ink-jet recording material such that the longitudinal direction of the material is at a right angle to a flowing direction of the material at a time of coating.

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8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kirsten C. Jolley whose telephone number is 571-272-1421. The examiner can normally be reached on Monday to Wednesday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on 571-272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Kirsten C Jolley  
Primary Examiner  
Art Unit 1762

kcj